



Outdoor Advertising Association of America

CORE DATA EXCHANGES AND PLATFORM ANALYSIS

May 1, 2015

OAAA Taskforce White Paper


Written by Marketing Evolution

Executive Summary

Out of Home (OOH) is not easy to plan, buy or measure. In its current form, OOH faces significant headwinds relative to other media brought on by changes in technology, the emergence of big data, and growing pressure to prove ROI on advertising spend. However, the OOH industry is in a position to take advantage of these changes with the proper approach to the data and technology.

Specifically, we find the industry should provide a public data store, establish ROI measurement guidelines, offer a database of best practices to marketers based on proven ROI, Feed ROI into cross-media planning software, and standardize and automate the Request for Quote process to make buying OOH easier, faster, and more simple. We recommend that this system be open and interoperable to support existing third party platforms that follow the technical protocols, and allow them to layer on their own data and systems.

In the absence of industry-sponsored best practices, third parties will look to develop their own methodologies to determine the value of various advertising media, such as AOL has recently announced. However, there is real risk that these systems mistreat OOH. By allowing others to define the value of OOH, the industry risks share loss. We suggest the industry not wait to see the protocols get adopted, or wait while incomplete solutions that miss important components create confusion of OOH value. By leading through protocols, guidelines and best practices, in a complete manner – spanning data store, ROI measurement, planning, buying and best practices, the OAAA can drive industry-wide change and future growth.



Scope of Work
The study will examine many questions including those related to competitive business concerns, longer-term implications (such as commoditization), legal issues (including anti-trust), technical requirements, programmatic buying comparisons, and more. The study will also examine the feasibility of building an industry-sponsored platform, or if it is better for the industry to encourage continued development by third parties, or both.

The reason for considering this initiative is to reduce the consistent complaint that OOH is not easy to plan, buy, and measure. At a minimum, we this analysis will be used to help determine if the industry can ensure more consistent and seamless protocols in the 3rd party planning systems being offered to the marketplace.

The study will also examine the opportunities and challenges associated with creating a nationwide digital OOH network. National advertisers have asked if the OOH industry's digital footprint can be more easily accessed and this study will look at options for achieving this objective. An industry stakeholders ad hoc committee will provide guidance throughout the study process.

Overview

Technology is changing marketing. The OAAA initiated an engagement to study a variety of issues and options, specifically with respect to addressing the persistent complaint that “OOH is not easy to plan, buy, and measure.” (The sidebar includes the original Scope of Work – *emphasis added by Marketing Evolution*).

Marketing Evolution was selected to fulfill the scope of work. Marketing Evolution’s core business delivers Return On Investment software and analysis for a variety of marketers in a variety of industries. From this vantage point, the firm sees a broader context of marketing trends, as well as the specific issues related to planning, buying, and measuring Out-of-Home and other media.

Methodology

Answering the SOW includes several research steps:

1. Industry interviews
2. Evaluation of revenue trends/share of media spend
3. Analysis of ROI research
4. Integration of industry trends, and significant technology announcements
5. Working sessions with the OAAA ad hoc committee
6. Working session with the OAAA leadership, and CMO council
7. Development of decision trees, and ultimately this whitepaper and presentation

Marketing Evolution conducted interviews with Out of Home media vendors, companies with Out of Home-focused planning and buying platforms and exchanges, ad agencies, and with advertisers themselves. Based on what we have learned from these conversations and in connection with broader industry research, we will lay out in this report our recommendations for the OAAA the best approach for improving the planning and buying process in Out of Home media. The ultimate goal of these recommendations, if implemented, is to provide solutions that reduce the consistent complaint that Out of Home is not easy to plan, buy and measure for agencies and advertisers.

The findings and recommendations in this report were based on interviews that Marketing Evolution conducted. Interviews included the largest Out Of Home planning and buying systems providers in the US: Buntin Out Of Home Media, DoMedia, and ADstruc. In addition, we interviewed Out of Home vendors Clear Channel and Outfront Media for perspective on the current landscape and concerns related to potential industry changes. On the data front, we spoke with leads at TAB and had the opportunity to access their measurement databases as part of this analysis. We interviewed board members of the IAB, MMA, and those involved with the development of the IAB’s programmatic guidelines. We interviewed top five agency members, and significant OOH advertisers.

In addition to interviews, revenue trends for OOH are analyzed along with relevant ROI studies, TAB standards, and whitepapers on previous efforts related to platforms outside of the OOH industry, and implications to OOH. Discussions with industry leaders involved with digital’s development of programmatic advertising rounded out the analysis.

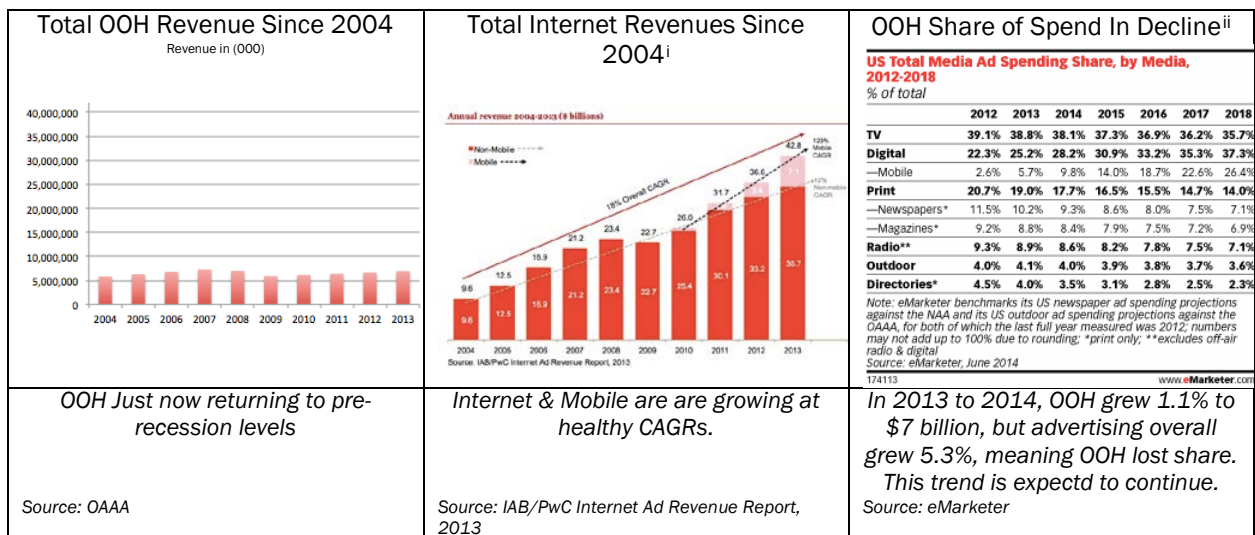
After the initial analysis, Marketing Evolution presented to the OAAA Ad Hoc team, and the OAAA CMO group. Marketing Evolution presented five broader trends shaping the industry, as well as a

demonstration of how software is used for cross-media budget planning and ROI measurement in the broader mix, using a retailer as a case example. After receiving feedback, the team prepared a presentation with a “true north” framing of what drives the industry and the decision tree analysis (both included in this whitepaper). This is used in a working session with OAAA leadership that explored the decision-tree presented in this paper, as well as the working session with the ad hoc committee.

This whitepaper and the presentation are the culmination of these interviews, analysis, experience and feedback. The whitepaper represents Marketing Evolution’s perspective and recommendations to the OAAA.

Background & Trends

Since 2004, OOH revenue has risen 19 percent, before adjusting for inflation. By contrast, Internet revenue is up 346 percent. When considering the overall growth in advertising over the past decade, and considering projections for the next few years, it becomes clear that OOH is not keeping pace.



OOH is losing share, yet, an authoritative analysis on the share of spend that should go to OOH puts the figure above current spend levels. The study demonstrates that most marketers should be spending between 5 percent and 25 percent versus 4 percent currently spent in OOH.ⁱⁱⁱ

So why the discrepancy?

Let’s take a look at what we know to be true and turn to the trends shaping the media landscape for answers.

<p>True North:</p> <ol style="list-style-type: none"> (1) Marketers ultimately control the OOH budget. They are in businesses to generate an ROI from their investment. (2) Marketers chase consumers (audience and behaviors) because that is where they get their 	<p>Trends:</p> <p>The five broader trends we find particularly noteworthy are as follows:</p> <ol style="list-style-type: none"> (1) An explosion in the availability of addressable media and targeting. (2) Automation to deal with the complexity of addressability/targeting.
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<p>returns. Marketers are becoming more targeted, approaching one-to-one marketing.</p> <p>(3) The competitive dynamic places value on targeting, speed and agility.</p>	<p>(3) Big data available at less cost.</p> <p>(4) An expectation of ROI proof.</p> <p>(5) Interoperability and open source within marketing technology.</p>
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These trends explain a variety of changes in marketing, including the emergence of programmatic advertising and why OOH may be leaving money on the table.

There are many flavors of programmatic.¹

	Type of Inventory (Reserved ¹ , Unreserved)	Pricing (Fixed ² , Auction)	Participation (One Seller-One Buyer, One Seller-Few Buyers, One Seller-All Buyers)	Other Terms Used in Market	Other Considerations
Automated Guaranteed	Reserved	Fixed	One-One	Programmatic guaranteed Programmatic premium Programmatic direct Programmatic reserved	<ul style="list-style-type: none"> • Prioritization in the ad server • Deal ID • Data usage • Transparency to buyer • Price floors
Unreserved Fixed Rate	Unreserved	Fixed	One-One	Preferred deals Private access First right of refusal	
Invitation-Only Auction	Unreserved	Auction	One-Few	Private marketplace Private auction Closed auction Private access	
Open Auction	Unreserved	Auction	One-All	Real-time bidding (RTB) Open exchange Open marketplace	

Source: Interactive Advertising Bureau 2013

1. Reserved Inventory is advertising space on a publisher's site that is put aside for a specific advertiser for an agreed price
 2. Fixed Price is any arrangement where the buyer & seller agree on a flat price that the buyer pays rather than the highest bidder in an auction environment

At the most fundamental level programmatic is using computer programs, which include algorithms and automation, to make it faster and less expensive to plan and buy media. One can think of programmatic as simply automating the current way of doing business. This automated foundation can then support other ways of doing business. This includes self-serve buying, private and public exchanges, and the emergence of real-time bidding – where inventory is made available to the buyer with the highest bid. However, a media owner need not adopt any new style of business. In other words, programmatic is really about *automation*. Automation can be used to simplify and reduce cost from the existing ways of selling, or to enable new ways of selling. Self-service, in particular, makes it possible to garner revenue from the “long-tail” marketers that spend only a small amount, which would have not been profitable to service without automation. With a majority of OOH advertising revenue based on small, local businesses, the potential for revenue through an automated process offers significant potential. Digital has led this trend toward automation and benefited with a larger share of the media budget.

¹ Please see IAB's report, "Programmatic and Automation – The Publishers' Perspective" (http://www.iab.net/media/file/IAB_Digital_Simplified_Programmatic_Sept_2013.pdf)

From Mad Men to Math Men

The expectation of ROI proof among agencies and advertisers is new within the past decade. Prior to the last decade, there was a noticeable divide between those who believed marketing could be measured and optimized, and those who believed that advertising did something beneficial, but it could not be quantified per se. As one Mad Men era agency executive, Rosser Reaves put it in 1961, “Recently a group of marketing men, almost idly, at a luncheon table, listed thirty-seven different factors, any or all of which could cause the total sales of a brand to move up or down. Advertising was only one of these. The product may be wrong. Price may be at fault. Distribution may be poor. The sales force may not be adequate. Budget may be too low. A better product may be sweeping the market. A competitor may be outwitting you with strong deals. There are many variables. And when a wheel has many spokes, who can say which spoke is supporting the wheel?”^{iv}

Math Men, by contrast, believe that media can be scientifically dissected and that sales can be attributed to the impact of each media and marketing element. As a champion cyclist explained to me, in the modern bicycle, each spoke can be tuned for optimal balance. This can make the difference between winning and losing the race. The explosion in the volume of data at lower costs and the nature of addressable digital media has made it possible to apply design of experiments, statistical analysis and machine learning at a level that has put the Math Men firmly in charge of marketing budgets. This is not just true of large Fortune 500 marketers. It is true of small businesses, which are applying Salesforce, Oracle, and Adobe technologies to quantify even modest marketing budgets. Setting aside the question of whether these quantifications are accurate, the fact is that businesses crave validation of their marketing spending – and this trend is unlikely to reverse itself. The hunger for ROI metrics feeds back into spending in areas that are more easily quantified. This is the wind in the sail that has propelled digital spending forward. It is also the headwind that has cut spending in media where the quantification, addressability/targeting and flexibility are less obvious.

Power of Data

The Big Data trend has implications for every media. While most media is transacted based on impressions, the value of the impression is shaped by the additional data that can be attached to it. Digital impressions are associated with consumer profiles containing thousands of possible variables describing the consumer. OOH is just beginning to scratch the surface of what is possible with geo-location data and cell phone trace analysis. Our investigation suggests that OOH has not yet benefited from the increasing availability of big data. The reason the data attachment is so important is that marketers believe it will improve return-on-investment through targeting. Increasingly, as marketers move toward one-to-one, the data is important for targeting the right message, as well as closing the loop on the ROI impact of the marketing. OOH could benefit from these trends, ***but it will need to play catch-up, or leap-frog to reverse the loss of share in advertising spend.***

The Marketing Tech Ecosystem

Today, marketing organizations are increasing their investment in marketing technology (MarTech). Some analysts such as Gartner forecast that CMOs will spend more on tech than CIOs by 2017.^v The technologies that are noteworthy to the OAAA include:

- Budget Planning
- Data Management Platforms (DMP)
- Buying Systems/Exchanges

Yield Management
Digital Asset Management (DAM)
Marketing Operation Management (MOM)
Knowledge Management (KM)
ROI Measurement & Optimization (ROI)
Business Intelligence (BI)

This technology list is far from exhaustive. Rather, this list touches on cornerstone elements that are most closely aligned with advertising. We will return to this ecosystem in the recommendations section. We will note where we believe it is in the OAAA's interest to engage.

Value of Standards in the Ecosystem

The trend toward interoperability and open source is broadly seen in technology. Interoperability is the idea that separate systems can easily work together because there is an agreed upon protocol. The Internet itself is a great example of the power of generally accepted protocols. As a consumer, you can use any one of many web browsers to access a web page. The web page, in turn, can be populated by any number of different web servers. The exchange of information works seamlessly because of agreed upon protocols that promote interoperability. Open source is a related concept. Linux first popularized the open source movement in operating systems. The source code is open, allowing others to add on or enhance the code base to everyone's benefit. A watershed event occurred when the open source software, R-Revolution, was purchased by Microsoft with a commitment to maintain the open source nature. When the behemoth known for closed proprietary operating systems publically does an about-face to embrace open source, that is an amazing reinforcement of the power of this trend.

The IAB proved that promoting open industry standards combined with ROI data can move the market. As one of the interviewee's noted, "The tendency is for companies to advance their own approach, thinking it will give them an advantage and they will make more money. That is the way it was with Railroads more than a century ago. The gauge of the tracks didn't line up and different companies duplicated efforts in an effort to gain advantage. But, once there was an industry standard for the width of the track, the whole industry grew much more quickly and everyone made more money than when they held on to proprietary approaches. We've proven that this is true in media. Prior to the IAB standards for programmatic, different companies pushed their own approach to win deals, but the overall market was hampered by unnecessary complexity and cost of building to multiple standards. Now, with the programmatic standards, the whole ecosystem is easier to use, less expensive and more profitable."

What does this mean for OAAA?

The trends point to the logical outcome of integrated media planning and buying platforms as a fait accompli. The question is more about the how to ensure OOH is represented in a way that benefits media owners, and helps marketer achieve attractive ROI.

In April 2015, AOL announced that they have software that will allocate all of a marketer's budget across all media. The question is, does Clear Channel want AOL defining how much should be spent on OOH? Does Outfront? Does Lamar? Does any media owner want the question of how much budget they get decided by another media owner? Yet, in the vacuum of no standards, what will

happen? We predict more platforms will emerge. The odds that OOH is short-changed is great. There is an alternative. The OAAA can fill the vacuum. The OAAA can advance protocols that make OOH easier to plan, buy, and measure. This is a page out of the IAB's playbook, which the IAB executed to brilliant success.

Playbook of Other Media/Trade Associations

As part of this engagement, OAAA CEO Nancy Fletcher asked that we share what the IAB did to achieve their success. Given Marketing Evolution's front row seat in the IAB success, and our work with the broader media industry, she asked that we share what other trade associations have done or are doing well.

The Interactive Advertising Bureau (IAB) has certainly been the most successful in growing the share of media budget. The Mobile Marketing Association (MMA) is making a huge impact as well. What is their playbook?

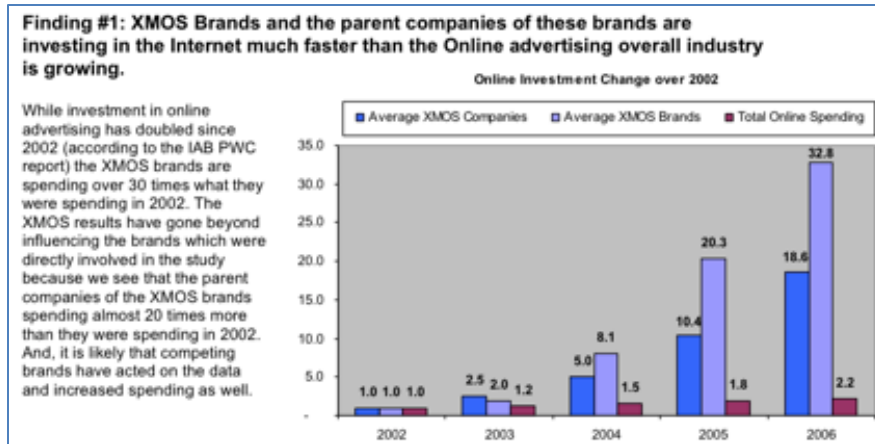
Marketing Evolution acted as the initial research department for the IAB. This provided a bird's eye view to the strategy. The key elements included:

1. Format standards
2. Data/ROI
3. Automation of buying/selling (which evolved to interoperability)

Format standards simplified the dizzying array of ad units into a handful of IAB Standard Units. ROI research then focused on achieving objective, gold-standard research to quantify the value of these ad units. Research had started independently by many firms, however, that left the IAB out of a leadership position and led to different claims by different members about the effectiveness of one media owner versus another rather than promoting the industry as a whole.

The initial research focused on the IAB standard ad units, their efficacy, and relative value. While this research proved the efficacy of online advertising, it did little to change marketer and agencies spending behaviors. This is a typical problem with research about a single media. Without the cross-media context, a marketer has no evidence to support changing budget allocations. The next wave of research was cross-media research. This development is notable because it marked a break from looking at Internet in a silo to seeing the Internet as a component of the overall marketing mix. An aspect of the research examined the synergies among media, and the spending recommendations were always presented in context of the overall media mix. This approach to ROI was key to the growth of digital. Forrester analyst Jim Nail notes it as the critical ingredient in Online's success.

This research generated useful case studies and best practices that the trade association leadership used to promote the industry. The research was specifically designed to generate close relationships with marketers through the "case based research" approach. The case-based approach is different than the OOH empirical generalization analysis cited earlier in this paper. The result of pursuing this case-based approach was that, despite the recession and "dot bomb" crash of Internet stocks, Internet advertising grew 2x from 2002 to 2006. An empirical analysis of share shift among the brands participating in the research found spend growth of over 3200 percent.



Source: IAB, ARF, Marketing Evolution.

The research generated ROI norms, and best practices that gave marketers much greater confidence in increasing their spending. At the same time, the research generated a best practice for ROI measurement, which was endorsed by the ARF, and generally adopted by a number of marketing research firms. This further supported the ROI story for the media, generating more data, some of which found its way into industry ROI norms databases.

Data for behavioral targeting and the *automation* of the planning and buying process for the medium occurred in parallel. Automation, based on promotion of standards, allowed for interoperability across media owners, and is what we now call programmatic advertising.

Programmatic in turn has made possible many variants that increase the size of the market that can buy advertising. This includes the self-service variants that enable participation of the marketers with small media budgets (the so called long-tail of media spending). It includes private exchanges, and real-time bidding (RTB). Automation allows for these variants, but does not require them. The choice is the media owner and the marketer in terms of how they want to transact. For example, RTB exists in part because it can be documented that RTB increased the value of inventory that otherwise would have been sold for less, or not sold at all. But, if excess inventory is not an issue, RTB may not be a component of OOH programmatic.

The self-service programmatic buying made access available to a wider pool of marketers, which also fueled growth. The fact that those marketers could try the media at a low cost, and track some activities such as online ordering, propelled growth. The industry made a point of sharing data and insights. This provided benchmarks for various activities. This generated best practices and a plethora of case studies.

IAB Playbook

The reader of this whitepaper can safely assume that Marketing Evolution's understanding of the changes in the landscape are informing our advice to other trade associations, and informing the ways in which we use our own ROI technology in the marketplace. In full disclosure, we note where Marketing Evolution is currently engaged with other trade associations or significant media owners. The interesting observation is that a year ago, Marketing Evolution was not engaged with trade associations. What's changed?

We suspect that the leaders of the trade associations are contemporaneously sensing the data and technology trends. We observe that many leaders are coming to the conclusion that a trade association that leans into technology can play a pivotal role in the future health of their industry.

It can be argued that the IAB emerged as the pre-eminent trade association over several other organizations that laid claim to representing the interests of internet media owners and marketers precisely because the IAB took on the leadership in standards, ROI measurement, and automation (programmatic).

Other Trade Associations

The Mobile Marketing Association (MMA), now headed by former IAB Chief Greg Stuart, is repeating the IAB playbook. The MMA is a mix of marketers, media owners and mobile technologies. The MMA's focus first and foremost is on ROI analysis. They announced SMoX (Smart Mobile Cross Media Effectiveness Research).² The MMA retained Marketing Evolution to conduct research after an unsuccessful attempt with Nielsen. The MMA is now actively releasing findings with media planning software due out later this quarter. The MMA is in the advanced stages of a road show, and has a database of best practices. They have announced a multi-year commitment to the strategy.

TVB, the local television trade association, recently retained Marketing Evolution. They have adopted the Marketing Evolution media-planning software, and are in the early stages of roll-out.

CTAM, the cable television association, chairman is a Marketing Evolution client from Cox, Mark Greatrex. He has recently reached out to Marketing Evolution to join as member, and to present with Cox the trends and ways in which Cable TV should be using ROI and technologies to sell the media.

NAB: We have not heard of any industry level plans.

RAB, Radio's trade association, has a database of research. Individual members such as Clear Channel (iHeart) have pursued ROI studies with Marketing Evolution, and other ROI firms. Other audio providers like Pandora have thrown their support behind the MMA SMoX research. It is unclear what moves the RAB plans. It is clear that iHeart is deploying programmatic.

MPA, the magazine publishers association, has dabbled with ROI whitepapers, but has no sign of industry led platform. The more powerful members such as Time Inc. and Meredith are going it alone, working independently. Time Inc., for example, announced their Engage Platform, powered by Marketing Evolution, to perform media planning, buying and ROI measurement specifically for Time Inc. assets.

Decision-Tree Analysis

The reality is more and more of the \$170 Billion in US Advertising is being planned by marketing mix modeling algorithms fueling advanced cross-media planning and allocation systems. These marketers ask: if an algorithm is dividing up the media mix pie chart, can algorithms also connect

² SMoX: <http://www.mmaglobal.com/smox>

into the inventory to make sure the plan is realistic? And if we can connect to the inventory for planning, can we use technology to also place the buy?

From our interviews with advertisers, we learned that OOH is often placed in a silo, planned and budgeted separately from other media. This approach limits the ability for OOH to grow share of media budgets, and potentially, limits the media's efficacy if not connected to the advertiser's broader campaign messaging. Seeing OOH in the full context of competing in the marketplace of all the avenues marketers have to connect with consumers will result in a better long-term strategy for OOH success.

The undeniable trend is marketers' obsession with advertising's ROI. One dimension of the ROI equation is media's effectiveness. A second dimension is the cost-cutting efficiency. Over the last decade, many agency pitches begin with, "We can cut your media cost by 10 percent and deliver the same business results." This has hurt OOH, which is relatively more labor intensive to plan and buy than other media. A new trend is beginning to pick up momentum. In an interview with a top 5 media agency, they validated the urgency of the need for software to streamline planning and buying. The broader trend is optimizing placements – which combines the automation of planning and buying with ROI data. It is valued because it can get the right message to the right people (increasing effectiveness) and it can simultaneously reduce costs. This holds promise for OOH.

A third dimension of ROI has emerged recently: The value of time. Software helps marketers move faster. For the digital side of the OOH business, this is particularly useful. For non-digital OOH, this creates a disadvantage, which has to be offset with some other compelling benefit (such as really smart targeted placement yielding greater effectiveness).

This shift toward software and algorithms is both an opportunity and a threat to media owners. The shift poses a threat because a wrong design will commoditize OOH in a way that undercuts its true potential impact and value. This would result in lower CPMs for OOH media owners, and may result in marketers getting less impact from OOH than is optimal. This is a lose-lose proposition, and a realistic outcome if OOH industry doesn't take action over the next 36 months.

On the other hand, there is palpable opportunity. Software is an opportunity because it could answer the complaint that "*OOH is not easy to plan, buy, and measure.*" It is an opportunity because it can allow a marketer to recognize the unique power of place-based media. It is an opportunity because a system can increase access to OOH advertising inventory, thus increasing competition for that valuable inventory, which would increase CPMs. It is an opportunity because it could become a system that helps marketers apply best practices to create more impactful OOH, resulting in more OOH value and higher CPMs.

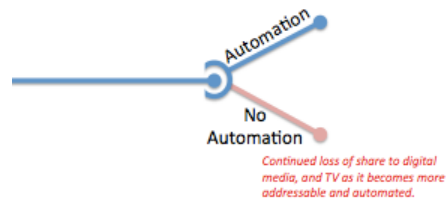
An examination of the facts suggest the OOH is under-spent currently, and is losing ground to digital and mobile not because the other is better per se, but because they are easier to plan, buy and measure. For OOH, ROI is opaque, best practices are hard to come by, and planning and buying is a chore.

The industry can deliver a solution.

But what kind of solution?

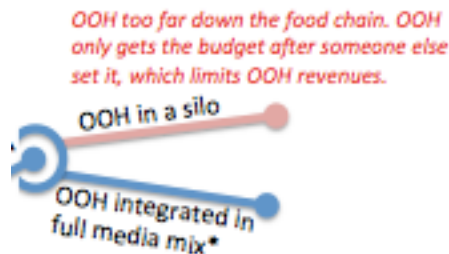
A decision tree was used to explore the paths the OAAA might pursue.

To start, we examined the (1) choice between pursuing automation vs. no automation.



The consensus of the ad hoc committee and the author is that no automation will result in continued loss of share to digital media, mobile, and as TV becomes more addressable and automated, potential loss of share to TV. The best path for OOH is automation in the planning and buying process.

The next decision tree is (2) whether OOH should pursue a path that integrates it with the full media mix versus OOH in a silo, as is the current status of OOH planning and buying tools we reviewed.



The consensus of the ad hoc committee and the author is that continuing with OOH in a silo is a problem because OOH is too far down the food chain, meaning, the OOH businesses do not get visibility in terms of how the OOH budget is set relative to other media. This limits OOH revenue because the OOH media owners gain no insight as to what would lead OOH to getting more budget. In contrast, the Internet opted to include itself with the overall media mix context and learned a great deal about how to increase its ROI and garner a larger share of the budget. Mobile is following this same path of cross-media evaluation with its SMOX.me research.

The decision of (3) Open Source Buying Guidelines vs. No Guidelines was in favor of guidelines. Buying guidelines enable programmatic automation leading to self-service platforms. These make it possible for long-tail marketers to buy OOH. Open source buying guidelines also make it possible for smaller OOH media owners to make their inventory available to national advertisers. This is good for marketers, and likely will expand the overall size of OOH advertising compared to not having open source guidelines.



The preference is for open source buying guidelines to support interoperability. This is consistent with how the Internet evolved. Those we interviewed (both media owners and programmatic system providers) point to the evidence that this open source buying systems approach accelerated growth and actually increased rates slightly as more demand in the system bid prices up more than would have occurred if it wasn't as easy to buy programmatically.

The next decision relates to (4) Open Source “Bring Your Own Data” (BYOD) versus only enabling basic TAB demographic and impression. In some ways, this decision has already been made the moment Lat/Long data was published for the OOH inventory. Any marketer, agency, or research firm can associate data to OOH advertisements based on location. The issue really is whether the industry wants to make this really easy to do by assembling a useful data store, and encouraging more data to be added publicly or appended privately (BYOD – bring your own data).



The consensus of the ad hoc committee and the author is that more data is useful in increasing the value of OOH inventory. An open source data store allows marketers to buy audiences rather than the more circumspect purchase of boards. It can be argued that this is the current state of OOH, with approximately 65 percent of buying occurring at the local level, without use of TAB data, bought based on location and photos of boards, can be streamlined (at a minimum). The argument goes, why not at least make the process easier? Adding the data on top of that automation only adds value.

Limited data makes commoditization more likely. Commoditization makes room for arbitrage players that add their own data layers and cherry pick the valuable placements that they can re-sell for higher revenue to marketers. This shifts the value from the media owner to arbitrage middle-men. When there is more transparency because the attached data is easy for both buyer and seller to see,

it creates less incentive for arbitrage players, and more direct exchange of value between media owner and marketer.

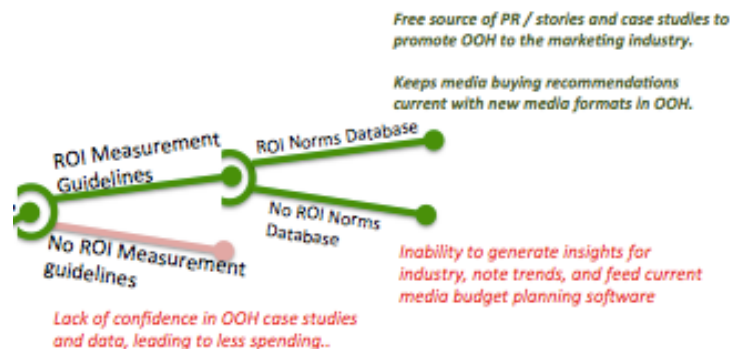
The next decision is related to (5) having industry association curated best practices or not. The Internet and Mobile Marketing Association have both gone down the path of curated best practices with meaningful success. Without industry curated best practices, it is more likely that marketers will get inconsistent results, and lower average ROI. The logical outcome of inconsistent results and lower ROI is to spend less in OOH. In a world of software that knows the elements of OOH in the plan, best practices can be proactively distributed to the right people in the agency and marketing organization. This can help OOH grow.



The consensus of the ad hoc committee and author is that best practices would be useful. However, it was noted in interviews that there is a dearth of ROI analysis of OOH at an industry level from which to draw proven best practices.

This leads to two related decisions, (6) whether the industry should promote ROI Measurement Guidelines, and (7) whether it should develop an ROI Norms database based on the application of research guidelines.

Without ROI Measurement guidelines, there is less confidence in the OOH case studies, leading to less influence on marketers, and less spending. Moreover, the lack of ROI database means that sales people from individual media groups promote the research that may seem self-serving, rather than an industry voice that may be perceived as an authoritative expert.



A review of recent OOH ROI studies showed some really exciting use of mobile tracking to quantify OOH effectiveness and ROI. However, most studies we reviewed lacked methodological documentation to assess the quality of the work. None had an endorsement from the ARF, or comparable research body. Contrast this to Internet and Mobile, which both have ARF endorsement

of methodology. The IAB and MMA results are presented at the ARF as part of the public release process.

An industry norms database is a relatively new concept. The potential benefit is an ongoing source of PR/stories and case studies promoting the value of OOH. Another benefit of an industry ROI norms database is as a mechanism to check the ROI recommendations of third parties against the answer in the norms database. For example, when AOL announced the One Platform and left OOH out, what fact based recourse did the OOH industry have to respond to this oversight? If AOL includes OOH, but gives it a scant value, what evidence can the OOH industry offer that they are wrong, and marketers will lose sales and profits if they cut OOH spending? Wouldn't it be preferable to have a guideline and system to point tech companies like AOL to so they get OOH right?

Taken together, the decision tree analysis brings us to our findings and recommendations.

Findings & Recommendations:

1. To be competitive within the broader media landscape, OOH should move to open standards supporting automation. However, publishing standards isn't enough. The industry needs a working system with all the components to encourage adoption.
2. The ideal system will include a data-store that reduces the likelihood of commoditization, and increases the value of the inventory. This data store is built on rich consumer-targeting data, allowing advertisers to buy audiences, which will add value above just buying locations.
3. Legal issues are easily handled by publishing open guidelines rather than mandatory requirements. Take special care to avoid pricing discussions among participants. The Internet provides an excellent template for the process of evolving the guidelines and avoiding price fixing concerns.
4. The OOH industry already has a series of excellent guidelines, and is well poised for programmatic. The technical requirements are straight-forward use of Application Interfaces (APIs). A "fast follower" approach of adopting the protocols published by the IAB, and adapted to OOH is a feasible and an easy path forward.³
5. We conclude that the industry will grow faster, and have greater long-term success with an industry-endorsed solution that applies the published guidelines. We are not recommending a single industry platform. Rather, we are recommending an open protocol. The components of such a system include:
 - a. Cross-media planning*
 - b. Data store
 - c. Buying**
 - d. Best Practices, ideally triggered by media buying
 - e. ROI measurement guidelines
 - f. ROI Norm Database***

* including interoperability with other media planning system.

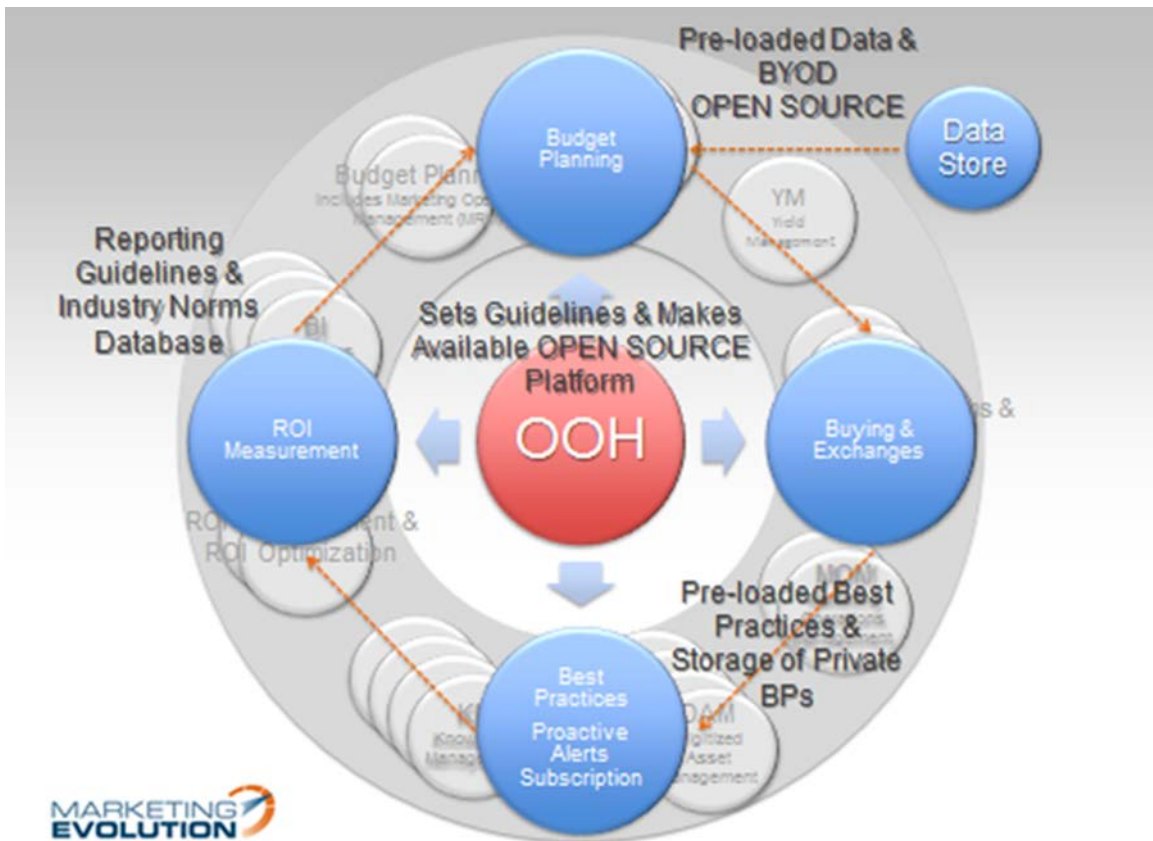
** including interoperability with DMPs, and interoperability to work with any of the current systems that follow the published guideline.

³ Please see www.iab.net/programmatic

*** May need to conduct OAAA research, and/or create an incentive for marketers and media owners to contribute their data to fuel authoritative industry trends, and to feedback into the cross-media planning.

Recommendations Discussion

The chart below illustrates the ideal components of an industry solution highlighted in blue. The elements are meant to be interoperable, using what is known as *service architecture*. The grey circles represent alternative solutions that follow the same protocols. Therefore, a company may choose to use the OAAA media planning solution, then execute the buying through another platform, which in turn connects back to an OAAA Best Practice database to benefit from this repository.



In considering a recommendation for the OAAA, we examined options for “structures” of a platform, including:

1. Un-guided entrepreneurial development (current state)
2. Industry guidelines to promote common standards/protocols
3. Industry sponsored technology

Option 1, un-guided development, is likely to continue on the same trajectory it has taken thus far. It has generated useful streamlining and automation, albeit with OOH treated in a silo, without the cross-media context. Competing frameworks, without industry standards will stymie growth, based on the Internet experience. The current third party platform development system has created some

efficiencies in the planning and buying process, but these systems are used only by select national advertisers. These systems do not have several other elements of an ideal industry solution, such as ROI Norms, Best Practices, cross-media planning, or a public data store.

Options 2 & 3 are therefore the recommended solution. Option 2, wherein industry guidelines to promote common protocols/standards is attractive as it requires the least investment and leaves the market open to all that want to engage with OOH. However, what is the incentive for the existing technology players to adopt the guidelines?

There has to be a catalyst for change.

The most promising approach is to use a “rabbit.” As in a greyhound race, the rabbit gives the racers something to chase. The rabbit in this case could be:

- (1) An initial platform that meets the guidelines and receives OAAA support. This is short of an “industry sponsored technology” in that it meets the guidelines, but is not the only solution the OAAA would support. Rather it is used as an incentive (the rabbit) to get others to meet the guidelines.
- (2) A 90 day contest. The technology that can be demonstrated live and meets the guidelines will receive OAAA seal of approval, and included in a roadshow to agencies and marketers promoting how OOH is now much easier to plan, buy and measure.
 1. The endorsement means being part of a list of solutions that follow the OAAA guidelines. We suggest this be non-exclusive. The goal is to have lots of solutions following the guidelines.
 2. A key to making this work will be a few media owners engaging with the platform(s) that meet the guidelines.
 3. The OAAA can review additional entrants at some time interval, such as once every quarter, and add to the list.

The goal is to have many dogs in the hunt, as it were. Those already in the OOH tech space may choose to deliver a single component, such as buying, or may choose to have a system that does all the elements. The “Industry Solution” need not be a single company, or technology. However, it is important the OAAA make as many elements available as quickly as possible using the standard protocols. Time is essential for three reasons:

First, the release of a fully operational system will trigger the behavioral economic construct of *loss aversion* among tech incumbents that currently have closed systems. Their choice will be to follow the protocols and open up, or stay closed and risk being left behind.

Second, marketers are not waiting on the sidelines hoping OOH catches up. They are reallocating away from OOH every day. Given that marketers should be spending at least 5 percent on OOH, the 2014 spend level suggests that OOH industry left over \$2 billion on the table for other media to take. That’s \$5.5 million a day lost to other media. In 2014, total media grew by 5.3 percent yet OOH only grew by 1.1 percent. eMarketer predicts OOH will see a continued loss of share for the foreseeable future. Factoring in growth potential in the long-tail of marketing (marketers with relatively small budgets), we calculate the total upside to the OOH industry at \$3.5 billion. After interviewing agencies and marketers, we are

convinced the OAAA had it right in the SOW, when it called out the problem. It is indeed the difficulty in planning, buying and measuring the ROI that is a key reason for the lost share. Add to the situation a lack of best practices, lack of ROI benchmarks, and lack of publicity around the proven ROI of OOH – and we see an urgency to fill the gap with an industry solution.

Third, new platforms are going to emerge frequently. AOL's announcement that they have a new solution in this area is noteworthy. If the OAAA had a system, including ROI data, they could easily fact check the voracity of the AOL recommendations against known optimized campaign. If OOH is getting short-changed, the OAAA could call attention to that fact, and offer to review the ROI practices in measuring OOH versus the published best practices. The OAAA could offer the ROI Norms for OOH, which could be entered into the AOL platform. **This would protect the OOH from being misrepresented as a proliferation of Media Budget Planning systems emerge.** Of course, marketers will always have the option of using the OAAA system in whole, or in part. In whole, the system provides a free and easy way to get a media budget, to place the order and receive best practice tips. Should the marketer or media owner chose to measure the ROI, they can use the ROI measurement guidelines, connect vendors that adhere to them, and feed their ROI data back into the norms database to compare performance against benchmarks. Without an industry solution, the OAAA has little visibility and no mechanism by which to engage, with an authoritative position, as new platforms emerge.

Beyond the downside risks creating pressure for speed, there are upside reasons for action. Such a system would make a nationwide digital OOH network feasible. At the most basic level, the system would issue RFQ/Inventory avails to the media owners in a manner that is fast and easy to answer. At a more advanced level, the Request For Quote (RFQ)/Inventory avails process could be automated as occurs with an increasing portion of Internet advertising. This is programmatic in a way that keeps the media owners firmly in control of their inventory and pricing.

The industry solution supports existing (and future) third party platforms in the marketplace. The industry solution we've suggested acts as a hub, connecting enhanced measurement data, along with industry case studies and best practices, to outside platforms. Third parties will then have the ability to layer on their own data and systems to provide value for advertising clients above and beyond the core industry solution we are recommending.

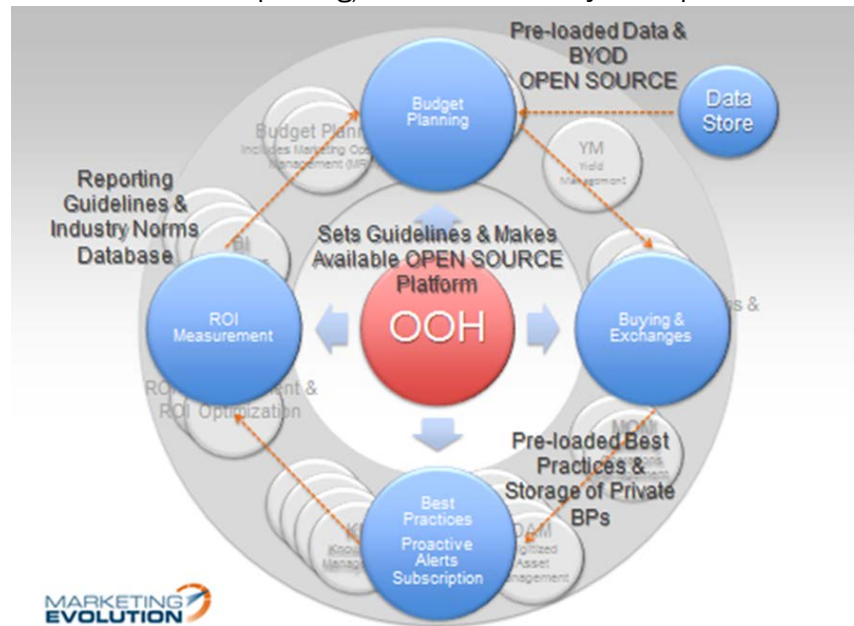
To provide an example, Regions Bank uses software to perform Budget Planning. This software is used to set the share of budget each media receives. This may interact with DMPs, which have consumer profile data to enhance advertising targeting. This plugs into media buying systems, which then calls on DAM systems to assemble the relevant creative message, which interacts with the MOM to note the payment versus contract terms. KM helps the marketing organization assemble best practices, and the ROI measurement tracks the effectiveness of the marketing and recommends changes to the optimized media mix. The results are displayed in a BI dashboard, which aggregates the learning to feed the budget planning software.

Our analysis of the Internet ecosystem development suggests that an industry solution will accelerate third party development, which may bring more value to the industry.

We are confident that an industry solution addresses the concern that OOH is hard to plan, buy and measure. Moreover, this solution provides immediate and sustainable advantage to the industry.

High Level Guidelines For Industry Solution:

This section offers a high-level suggestion of the key features of the Industry Solution we suggest. The blue (darker in black and white printing) circles are the major components.



Cross-Media Budget Optimizer/Planner:

Minimum:

- Spend to Impact Response Functions (SIRFs) by media, by industry, by target audience
- Duplication and synergy terms
- Decay/Carry-over effects
- Ability to adjust cost of media
- Ability to set minimums spend level

Additional:

- SIRFs by marketing objective
- Ability to save rate card

Data Store

- TAB Data (please see notes on TAB data)
- ACS geo-coded data
- Easy addition of data from 3rd Party Data suppliers, potentially creating a data marketplace
- Easy addition of data from marketer, agency (BYOD: Bring Your Own Data), with ability to keep it private
- Plug & Play functionality with Cross-Media Budget Optimizer/Planner

Buying

- Implementation of the OAAA & TAB RFP standard, implemented electronically

- Plug & Play functionality of media planning/Optimization with media buying system because common TAB coding is applied, plus additional “UPC” code (such as AdID) applied for non-TAB measured inventory
- Plug & Play functionality with marketing calendar, flowcharts so that media buys can trigger best practices
- Plug & Play functionality to support high quality ROI measurement of OOH

Best Practices

- Organized by type of OOH, industry, target audience, stage in marketing process (e.g. Creative Development), and role in marketing/agency that would use the best practice

Ideally:

- Proactively triggered by timeline in media planning software to deliver relevant best practice to the right person
- Generates OOH Meta Data on creative, and prediction of impact of best practice over norm
- Feedback on value of best practice so the system gets smarter
- Natural Language Processing (NLP) to intelligently answer best practice questions such as, “What is the best way for a new restaurant to use OOH advertising?”

ROI measurement guidelines

- Methodology:
 - **Gold:** Use of mobile GPS data and continuous measurement (or Pre/Post waves) combined with Exposed/Control ad delivery made possible with digital billboards Measure incremental impact using linkage of individuals with GPS data to survey and/or sales behavior
 - **Silver:** Matched market tests using pre/post and exposed control markets
 - **Bronze:** Time series statistical modeling using TAB guidelines for GRP transformation for OOH
- Reporting:
 - Report OOH impact by frequency, and by spend level (SIRF). Analysis can then be compared to OOH ROI Norms Database
 - ARF guidelines listing timing of campaign, methodology, and a standard set of details aiding meta analysis
 - Optional: Include use of OOH Meta data for coding creative content

ROI Norm Database

- Organized by industry, audience, marketing objective, and OOH advertising type.
- Reports OOH impact by frequency, and by spend level (SIRF).

End Notes:

ⁱ IAB internet advertising revenue report 2013 full year results April 2014

ⁱⁱ Total US Ad Spending to See Largest Increase Since 2004, Mobile advertising leads growth; will surpass radio, magazines and newspaper, eMarketer, July 2014, <http://www.emarketer.com/Article/Total-US-Ad-Spending-See-Largest-Increase-Since-2004/1010982>

ⁱⁱⁱ Out of Home Advertising And The Retail Industry, 2011 (Published by ClearChannel, Research by MarketShare Partners).

^{iv} Rosser Reeves, Reality In Advertising (New York: Alfred A. Knopf, Inc. 1961, Pages 4-5).

^v As quoted in Forbes, Five Years From Now, CMOs Will Spend More on IT Than CIOs Do Feb 8, 2012, <http://www.forbes.com/sites/lisaarthur/2012/02/08/five-years-from-now-cmos-will-spend-more-on-it-than-cios-do/> - and trend confirmed by CIO, Oct 13, 2014, CIO-to-CMO Transition of Power Is Becoming a Reality, <http://www.cio.com/article/2825086/cio-role/is-the-cio-cmo-transition-of-power-becoming-a-reality.html>